

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No. : **09/827,473**
Filed : April 6, 2001
Applicant : Joseph Allen Carroll and Robert L. Mitchell
Title : Clip-Mounted Catalyst Device

TC/AU : 1764
Examiner : T. P. Duong

Docket No. : 10782-0010
Customer No. : 29052

AMENDMENT AND RESPONSE TO OFFICE ACTION

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Responsive to the Office Action mailed November 4, 2005, and further to the telephonic interview with the Examiner on February 9, 2006, please amend the application as follows and reconsider the application in view of the following remarks and the attached Rule 132 Declaration by Robert L. Mitchell.

The Claims are reflected in the listing of claims, which begins on page 2 of this paper.

Remarks begin on page 7 of this paper.

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A catalytic converter device for use in an oven vent comprising:
 - a ceramic substrate having a first surface, a second surface, a circumferential surface, and a plurality of apertures extending through the substrate from the first surface to the second surface;
 - a material coating the ceramic substrate, wherein the coating material comprises a catalyst; and
 - a mounting ring comprising
 - (i) a body in the shape of a ring, the body having an upper edge portion and a distal lower edge portion;
 - (ii) one or more retaining tabs extending inwardly from the upper edge portion and at least one first lip extending inwardly from the lower edge portion, the one or more retaining tabs and the at least one first lip cooperating to extend from the body which secure the ceramic substrate therebetween within the ring about the circumferential surface of the ceramic substrate; and
 - (iii) one or more locking tabs extending outwardly from the body and at least one second lip extending outwardly from the body,
wherein the one or more locking tabs engageable by snap-fit or slide-lock engagement with one or more surfaces an edge of an orifice in the oven vent can be locked into place between the one or more locking tabs and the at least one second lip to secure the catalytic converter device within an the orifice of the oven vent such that gases flowing through the oven vent will pass through the apertures of the substrate.
2. (Original) The catalytic converter device of claim 1, wherein the ceramic substrate has a thickness of between about 1/32 inch and about ½ inch.

3. (Original) The catalytic converter device of claim 2, wherein the ceramic substrate is in the shape of a round disk.

4. (Original) The catalytic converter device of claim 3, wherein the ceramic substrate has a diameter of between about $\frac{1}{2}$ inch and about 2 inches.

5. (Original) The catalytic converter device of claim 3, wherein the ceramic substrate has a thickness of about $\frac{1}{4}$ inch and a diameter of about $1\frac{1}{4}$ inches.

6. (Original) The catalytic converter device of claim 1, wherein the ceramic substrate comprises cordierite.

7. (Original) The catalytic converter device of claim 1, wherein the ceramic substrate comprises a wash coat.

8. (Original) The catalytic converter device of claim 1, wherein the catalyst is a noble metal catalyst.

9. (Original) The catalytic converter device of claim 8, wherein the noble metal catalyst is selected from the group consisting of platinum, palladium, rhodium, and mixtures thereof.

10. (Original) The catalytic converter device of claim 1, wherein the mounting ring is formed from a metal selected from the group consisting of steels, stainless steels, aluminum, aluminized steel, mixtures thereof, and combinations thereof.

11. (Original) The catalytic converter device of claim 1, wherein the mounting ring comprises two, three, or four retaining tabs.

12. (Original) The catalytic converter device of claim 11, wherein the mounting ring comprises four retaining tabs.

13. (Original) The catalytic converter device of claim 1, wherein the mounting ring comprises two, three, or four locking tabs.

14. (Original) The catalytic converter device of claim 13, wherein the mounting ring comprises four locking tabs.
15. (Original) The catalytic converter device of claim 1, wherein the locking tabs extend from the retaining tabs.
- 16-17. (Canceled).
18. (Currently Amended) The catalytic converter device of claim 1, wherein:
 - the catalyst is a noble metal selected from the group consisting of platinum, palladium, rhodium, and mixtures thereof;
 - the ceramic substrate has a thickness of about $\frac{1}{4}$ inch and a diameter of about 1 inch; and
 - the mounting ring is formed from a metal and comprises (i) four retaining tabs and four locking tabs, with one locking tab extending from each retaining tab;
 - (ii) a first lip extending inwardly from a first edge of the body, the first lip working in conjunction with the retaining tabs folded over a portion of the first surface of the ceramic substrate at a second edge of the mounting ring to secure the ceramic substrate within the ring; and
 - (iii) an upper ring extending outwardly from the second edge of the body, a portion of said one or more surfaces of the vent being clipped between the second lip and the locking tabs to secure the catalytic converter within the orifice of the vent.
19. (Original) An oven comprising the catalytic converter device of claim 1.
20. (Original) The oven of claim 19 wherein the oven is a self-cleaning kitchen oven.
- 21-22. (Canceled).

23. (Original) A vent for venting gases from an oven, comprising:

- a tube having an inlet orifice and an outlet; and
- the catalytic converter device of claim 1 secured within the inlet orifice, wherein the one or more locking tabs are engaged with one or more surfaces of the tube adjacent the inlet orifice.

24. (Currently Amended) A catalytic converter device for use in an oven vent comprising:

- one or more screens formed of a plurality of woven metal threads, defining a plurality of apertures therebetween;
- a material coating the screens, wherein the coating material comprises a catalyst;
- and
- a mounting ring comprising
 - (i) a body in the shape of a ring, the body having an upper edge portion and a distal lower edge portion;
 - (ii) one or more retaining tabs extending inwardly from the upper edge portion and at least one first lip extending inwardly from the lower edge portion, the one or more retaining tabs and the at least one first lip cooperating to extend from the body and bent over a surface of the one or more screens along an edge of said one or more screens to secure the one or more screens therebetween within the ring; and
 - (iii) one or more locking tabs extending outwardly from the body and at least one second lip extending outwardly from the body,
wherein the one or more locking tabs engageable by snap-fit or slide-lock engagement with one or more surfaces an edge of an orifice in the oven vent can be locked into place between the one or more locking tabs and the at least one second lip to secure the catalytic converter device within an orifice of the vent such that gases flowing through the vent will pass through the apertures of the one or more screens.

25. (Previously Presented) A catalytic converter device for use in an oven comprising:

a ceramic substrate or a screen formed of woven metal thread, the substrate or screen having a first surface, an opposing second surface, and a plurality of apertures extending from the first surface to the second surface;

a material coating the ceramic substrate or the screen, wherein the coating material comprises a catalyst;

a body having an opening in the shape of ring around the perimeter or circumference of the catalyst-coated screen or substrate;

one or more first retaining tabs extending from the body over an edge portion of the first surface of the catalyst-coated screen or substrate; and

one or more second retaining tabs extending from the body and folded over an edge portion of the second surface of the catalyst-coated screen or other substrate,

wherein said retaining tabs cooperate to secure the screen or substrate within the opening and to clip the device within a vent, securing the device without the use of screws.

26. (Previously Presented) The device of claim 24, wherein the locking tabs extend from the retaining tabs.

27. (Previously Presented) The device of claim 24, wherein the retaining tabs and the locking tabs are integral with the body.

28. (Previously Presented) The device of claim 1, wherein the retaining tabs and the locking tabs are integral with the body.